

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-61 (Canceled)

62. (New) A flexible energy absorbing material comprising a resilient carrier with voids or cavities therein, said carrier being coated or impregnated or combined with a dilatant material.

63. (New) A material as claimed in claim 62 wherein the dilatant material is a dilatant compound.

64. (New) A material as claimed in claim 62 wherein the carrier is a spacer material.

65. (New) A material as claimed in claim 65 wherein the resilient carrier is a spacer fabric comprising a resilient core sandwiched between a pair of covering layers.

66. (New) A material as claimed in claim 65 wherein the resilient core comprises a layer of yarn and the covering layers have a plurality of apertures therein.

67. (New) A material as claimed in claim 66 wherein the yarn is woven into a resilient pile.

68. (New) A material as claimed in claim 66 wherein the yarn is knitted into a resilient pile.

69. (New) A material as claimed in claim 65 wherein the outer surface of each covering layer is formed with a plurality of compressible bubbles therein.

70. (New) A material as claimed in claim 65 wherein elongate hollow channels are formed in the compressible core.

71. (New) A material as claimed in claim 62 wherein the resilient carrier is made of a foam material.

72. (New) A material as claimed in claim 62 wherein the resilient carrier is a fleece material.

73. (New) An energy absorbing material as claimed in claims 62 wherein the dilatant compound is a dimethyl-siloxane-hydro-terminated polymer.

74. (New) An energy absorbing material as claimed in claims 62 wherein the dilatant compound has Duolite spheres or lightweight filler therein.

75. (New) An energy absorbing material as claimed in claims 62 wherein the dilatent compound is Dow Corning 3179.

76. (New) A flexible energy absorbing material comprising a resilient core of discrete modules made of dilatent compound sandwiched between a pair of covering layers.

77. (New) An energy absorbing material as claimed in claim 76 wherein the modules are randomly arranged in the compressible core.

78. (New) An energy absorbing material as claimed in claim 76 wherein the modules are arranged in axially aligned rows across the width of the sheet.

79. (New) An energy absorbing material as claimed in claim 76 wherein the modules comprise parallel elongate hollow tubular members.

80. (New) An energy absorbing material as claimed in claim 76 wherein each module has a covering layer thereon.

81. (New) An energy absorbing material as claimed in claim 80 wherein the covering layer is a hard outer skin of said dilatent compound.

82. (New) An energy absorbing material as claimed in claim 76 wherein the modules are spherical.

83. (New) An energy absorbing material as claimed in claims 76 wherein the dilatent compound is a dimethyl-siloxane-hydro-terminated polymer.

84. (New) An energy absorbing material as claimed in claims 76 wherein the dilatent compound has Duolite spheres or lightweight filler therein.

85. (New) An energy absorbing material as claimed in claims 76 wherein the dilatent compound is Dow Corning 3179.

86. (New) An energy absorbing material comprising a thread formed from a dilatent compound which is woven or knitted into a compressible layer.

87. (New) An energy absorbing material as claimed in claim 86 wherein the compressible layer is contained between a pair of spaced sheets of supporting material.

88. (New) A material as claimed in claim 86 wherein the thread has a covering layer thereon.

89. (New) A material as claimed in claim 88 wherein the covering layer is a harder outer skin of the dilatent material.

90. (New) An energy absorbing material as claimed in claims 86 wherein the dilatant compound is a dimethyl-siloxane-hydro-terminated polymer.

91. (New) An energy absorbing material as claimed in claims 86 wherein the dilatant compound has Duolite spheres or lightweight filler therein.

92. (New) An energy absorbing material as claimed in claims 86 wherein the dilatant compound is Dow Corning 3179.

93. (New) A method of manufacturing an energy absorbing material comprising a resilient carrier with a dilatant material therein comprising the steps of heating the dilatant material to convert it from its normal semi-solid state into a flowable form and working the flowable material into the resilient carrier to impregnate said carrier with the dilatant material.

94. (New) A method as claimed in claim 93 wherein the dilatant material is heated to 150°C.

95. (New) A method as claimed in claim 93 wherein the dilatant material is fed between a pair of spaced sheets of material with voids or cavities therein and then between a pair of heated rollers which press the dilatant material into the voids in the spaced sheets of

material, the energy absorbing sheet with the dilatant material therein emerging from the rollers.

96. (New) A method as claimed in claim 93 wherein the carrier is a foam material and the flowable dilatant material is pressed into the foam into under pressure at approximately 150°C.

97. (New) A method of manufacturing an energy absorbing material comprising a resilient carrier impregnated with a dilatant material comprising the steps of reducing the viscosity of the dilatant compound from its normal semi-solid state into a flowable foam using a solvent, pouring the thinned dilatant material into the carrier, and finally removing the solvent from the formed energy absorbing material.

98. (New) A method as claimed in claim 97 wherein the solvent is evaporated from the material by applying heat thereto.

99. (New) A method as claimed in claim 98 wherein the solvent is propanol, isopropyl alcohol, methanol, dichloromomethane, trichloromethane or a mixture thereof.